



#12/ RECEIVED

SEP 16 2002

TECH CENTER 1600/2900

SEQUENCE LISTING

<110> Keck, James G.
Molony, Jocelyn M
Kuo, Sophia S

<120> Non-Bacterial Cloning in Delivery and
Expression of Nucleic Acids

<130> 24743-2307US

<140> 09/601,997

<141> 2000-12-15

<150> PCT/US98/27942

<151> 1998-12-18

<160> 46

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 1

ccagctcctg atgagtcctg gaggacgaaa ccagga

36

<210> 2

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 2

ggccgttctg atgagtcctg gaggacgaaa cgtcgc

36

<210> 3

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 3

ctcgccgctg atgagtcctg gaggacgaaa cacgct

36

<210> 4

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 4

gcagatgctg atgagtcctg gaggacgaaa cttcag

36

<210> 5
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 5
 tggtcacctg atgagtccgt gaggacgaaa ggggtgg 36

 <210> 6
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 6
 agcggctctg atgagtccgt gaggacgaaa ggcact 36

 <210> 7
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 7
 catggcgctg atgagtccgt gaggacgaaa cttgaa 36

 <210> 8
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 8
 gctcctgctg atgagtccgt gaggacgaaa cgtagc 36

 <210> 9
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 9
 cgtccttctg atgagtccgt gaggacgaaa agaaga 36

 <210> 10
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 10
 cgccctcctg atgagtccgt gaggacgaaa acttca 36

 <210> 11

<211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 11
 tgcggttctg atgagtcctg gaggacgaaa ccaggg 36

 <210> 12
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 12
 cctccttctg atgagtcctg gaggacgaaa agtcga 36

 <210> 13
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 13
 gtagttgctg atgagtcctg gaggacgaaa ctccag 36

 <210> 14
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 14
 tgatatactg atgagtcctg gaggacgaaa cgttgt 36

 <210> 15
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 15
 ggatcttctg atgagtcctg gaggacgaaa agttca 36

 <210> 16
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 16
 ggtcggcctg atgagtcctg gaggacgaaa gctgca 36

 <210> 17
 <211> 36

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 17
 gcagcagctg atgagtccgt gaggacgaaa cggggc 36

 <210> 18
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 18
 cagggcgctg atgagtccgt gaggacgaaa ctgggt 36

 <210> 19
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 19
 ccagcagctg atgagtccgt gaggacgaaa ccatgt 36

 <210> 20
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 20
 ccatgccctg atgagtccgt gaggacgaaa gagtga 36

 <210> 21
 <211> 43
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 21
 agcttccagc tcctgatgag tccgtgagga cgaaaccagg aat 43

 <210> 22
 <211> 41
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 22
 cgattccthh ttctgtcctc acggactcat caggagctgg a 41

 <210> 23
 <211> 42
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 23

ggccgaattc ctgatgaggc agtgatgccg aaaagctttg ca

42

<210> 24

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 24

ggccgaattc ctgatgaggc agtgatgccg aaaagcttgg cc

42

<210> 25

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 25

aagcttttcg gcatcactgc ctcacagga attc

34

<210> 26

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 26

tactcaagct atgcaagtac tttcggcatc actgcctcat c

41

<210> 27

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 27

atcactagtg cggcccagct gctgatgagg cagtgatgcc g

41

<210> 28

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 28

cgagggatcc gggcccccg gttcggcatc actgcctcat c

41

<210> 29

<211> 43

<212> DNA

<213> Artificial Sequence

<220>
 <223> Synthetic DNA

 <400> 29 43
 cttatgcatg cggccggtac cctgatgagg cagtgtgatg ccg

 <210> 30
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 30 19
 ttgggccccga cgtcgcatg

 <210> 31
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 31 19
 gaattggggcc cgacgtcgc

 <210> 32
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 32 24
 tgtgagcgga taacaatttc acac

 <210> 33
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 33 21
 gaataactcaa gcttatgcat g

 <210> 34
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic DNA

 <400> 34 20
 catcaggaat tcggccggcc

 <210> 35
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Synthetic DNA

<400> 35
catcaggaat tcggccggcc 20

<210> 36
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA

<400> 36
ggcctgcaaa gcttttcgg 19

<210> 37
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA

<400> 37
catcaggaat tcggcctgca 20

<210> 38
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Plasmid DNA

<400> 38
agtactttcg gcatcactgc ctcatcagca gctggg 36

<210> 39
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Plasmid DNA

<400> 39
aagcttttcg gcatcactgc ctcatcagga attcgg 36

<210> 40
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Plasmid DNA

<400> 40
gccagtaccg atggaggcag tgatgccgaa cccggggggcc cg 42

<210> 41
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Plasmid DNA

<400> 41
 ccgaattcct gatgaggcag tgatgccgaa aagcttggcc cg 42
 <210> 42
 <211> 51
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Plasmid DNA
 <400> 42
 cgggccaaagc ttttcggcat cactgcctca tcaggaattc ggccgcatgc a 51
 <210> 43
 <211> 27
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Plasmid DNA
 <400> 43
 cgggccctct agatgcggcc gcatgca 27
 <210> 44
 <211> 57
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Plasmid DNA
 <400> 44
 ggctgcaaaa gcttttcggc atcactgcct catcaggaat tcggcctgca taagctt 57
 <210> 45
 <211> 56
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Plasmid DNA
 <400> 45
 ggctgcaaag ctttttcggca tcactgcctc atcaggaatt cggcctgcat aagctt 56
 <210> 46
 <211> 18
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Plasmid DNA
 <400> 46
 ggccgcatgc ataagctt 18